

DETAILED ACTION

Response to Remarks

1. The Office Action has been issued in response to amendment filed May 19, 2008. Claims 1-6, 8, 12 and 14-20 are pending. Applicant's arguments have been carefully and respectfully considered in light of the instant amendment, and are not persuasive. Accordingly, this action has been made **FINAL**.

Claim Rejections – 35 USC section § 102&103

Applicant arguments on pages 10-16 are moot in view of the new grounds of rejections.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-6, 8, 12 and 14-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1 and 12 recite the limitation an image extraction device having a sensor configured to extract one or more initial

images from the initial bank note using the sensor and extract one or more second images from the counterfeit banknote using the same sensor, however there is not support in the specification for this limitation and this limitation is essential to the claims. The closest description for the claimed limitation is found on page 13, [p][002] of the spec. However, this paragraph states that the initial and subsequent bank notes are handled in the same matter, not necessarily by the same sensor.

Claims 2-6, 8 and 14-20 are being rejected as incorporating the deficiencies of the claim upon which each respective claim depends.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-6 and 8 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the range of similarity" in lines 18. There is insufficient antecedent basis for this limitation in the claim.

Claims 2-6 and 8 are being rejected as incorporating the deficiencies of the claim upon which each respective claim depends.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Background of Specification and Fig 1 (referred to as Spec) in Giesecke et al (NPL document titled: "PIDSY® Post Identification System").

As to independent claim 12, Spec discloses a method of tracing bank notes (method to tracing counterfeit money - page 1, [p][001]), comprising the steps of: receiving a deposit of an initial bank note (see page 1, [p][006], lines 3-6 - where an initial bill is deposited); extracting one or more initial images from the initial bank note using a sensor (102 - see Fig 1); attaching an initial transaction log to the one or more initial images (note that the serial number of the initial bill is extracted and stored in a transaction log - [p][007], lines 1-11); receiving one or more images of a bank using the same sensor, which is physically the same bank note after being identified as counterfeit bank note (see [p][008], lines 1-10) comparing the one or more initial images of the initial bank note to the one or more images of the counterfeit bank note in order to obtain a comparison result (see [p][0010], lines 1-6). Spec teaches retrieving the initial transaction log, however does not specifically mention retrieving the initial transaction log based on the comparison result, if the comparison result indicates that the one or more initial images of the initial bank note and the one or more images of the counterfeit

bank note are within a range of similarity. Giesecke discloses a method for tracing counterfeit money that includes the step of retrieving the initial transaction log based on the comparison result, if the comparison result indicates that the one or more initial images of the initial bank note and the one or more images of the counterfeit bank note are within a range of similarity (see page 2). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modified the Spec with the method for tracing counterfeit money of Giesecke to bring together the data of counterfeit with original data of a deposit if a counterfeit bill is detected so that the origin of the counterfeit can be traced.

8. Claims 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Background of Specification and Fig 1 (referred to as Spec) in Giesecke et al (NPL document titled: "PIDSY® Post Identification System") further in view of ProCashin (NPL document titled: "ProCashIn/Signature for § 36 BbankG").

As to claim 14, note the discussion above, neither Spec or Giesecke teaches the method, wherein the step of extracting one or more initial images comprises: extract a front side initial image of the initial bank note in a first initial position; extract a front side initial image of the initial bank note in a second initial position; extract a back side initial image of the initial bank note in a first initial position; and extract a back side initial image of the initial bank note in a second initial position. ProCashin discloses a method to remove counterfeit money from circulation by back tracing (page 2, [p][001-003]), wherein the step of extracting one or more initial images comprises: extract a front side

initial image of the initial bank note in a first initial position; extract a front side initial image of the initial bank note in a second initial position; extract a back side initial image of the initial bank note in a first initial position; and extract a back side initial image of the initial bank note in a second initial position (see page 24, section Scanning in the counterfeit bill). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combined the Spec as modified by Giesecke and the method of ProCashin to create a database during a current customer operation and the subsequent tracing of a depositor of a bill recognized as a counterfeit by a central bank and carrying out the tracing using special software (see page 39, [p][002]).

As to claim 15, note the discussion above, ProCashin teaches the method, wherein the step of receiving one or more subsequent images comprises: receiving a deposit of a subsequent bank note; and extracting one or more subsequent images from the subsequent bank note (see page 24, section Scanning in the counterfeit bill).

As to claim 16, note the discussion of claim 14 above.

As to claim 17, note the discussion above, ProCashin teaches the method, wherein the step of comparing comprises comparing each subsequent image in each subsequent position a plurality of times to a corresponding initial image (see page 14, section Handling the bill backtracking operation).

As to claim 18, note the discussion above, ProCashin teaches the method,

wherein the one or more initial images include a unique characteristic that is specific to only one bank note, wherein the initial bank note is the only one bank note with the unique characteristic, wherein the unique characteristic includes other information besides a serial number of the initial bank note (signature data, page 14, section Notation, [p][0021]).

9. Claims 1-6, 8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Background of Specification and Fig 1 (referred to as Spec) in Giesecke et al (NPL document titled: "PIDSY® Post Identification System") further in view of Jones et al (Pub No.: US 2003/0059098).

As to independent claim 1, this claim differs from claim 12 only in that claim 1 is apparatus whereas, claim 12 is method and the limitations an automatic teller machine (ATM) electronically connected to one or more devices, the one or more devices comprising: a deposit device, wherein an initial bank note being transferred to an image extraction device, an image extraction device; a transaction log device, a comparison device and a retrieval device are additively recited. Giesecke clearly discloses an ATM electronically connected to one or more devices, the one or more devices (see Fig on page 2), however neither Spec nor Giesecke disclose a deposit device wherein an initial bank note being transferred to an image extraction device, an image extraction device; a transaction log device, a comparison device and a retrieval device. Jones discloses an automatic teller machine (ATM) (see Fig 1) electronically connected to one or more devices, the one or more devices comprising (see [p][0049], lines 8-10, where Fig 1 is

used as a stand alone device such as an ATM): a deposit device (110, input receptacles; see Fig1) wherein an initial bank note being transferred to an image extraction device (see Fig 3a, step 210), an image extraction device (140, image scanner; see Fig 1); a transaction log device (160; memory; see Fig 1); a comparison device (140, controller, see Fig 1) and a retrieval device (140, controller, see Fig 1).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combined the teaching of Spec as modified by Giesecke with Jones to track currency bills by extracting identification characteristics so that each processed bill can be associated with the customer depositing the bills, (see [p][0010]).

As to claim 2, note the discussion above, Jones teaches the automatic teller machine the one or more devices further comprising at least one of: a storage device (180, memory, see Fig 1) configured to store the one or more initial images and the transaction log and a network link (see Fig 4a) to an external storage device configured to store the one or more initial images and the transaction log.

As to claim 3, ProCashin teaches the method wherein the comparison device is further configured to determine if the one or more initial images are within a range of similarity to the one or more subsequent images (page 14, section Handling the bill back tracing operation, [p][001]).

As to independent claim 4, all the limitations are discussed above except: extract a front side image of the counterfeit bank note in a first position; extract a front side image of the counterfeit bank note in a second position; extract a back side image of the counterfeit bank note in a first position; and extract a back side image of the counterfeit bank note in a second position. ProCashin teaches extract a front side image of the counterfeit bank note in a first position; extract a front side image of the counterfeit bank note in a second position; extract a back side image of the counterfeit bank note in a first position; and extract a back side image of the counterfeit bank note in a second position (see page 24, section Scanning in the counterfeit bill).

As to claim 5, note the discussion of claim 4 above.

Claim 6 differ from claim 17, only in that claim 17 is method claim whereas, claim 6 is apparatus claim. Thus, claim 6 is analyzed as previously discussed with respect to claim 17 above.

Claim 8 differ from claim 19, only in that claim 18 is method claim whereas, claim 8 is apparatus claim. Thus, claim 8 is analyzed as previously discussed with respect to claim 19 below.

As to claim 20, Jones teaches the method of wherein the steps of the method are stored on a computer-readable medium (memory, 160, see Fig 1) as one or more instructions (software, [p][0051], line 6) for tracing bank notes, wherein the one or more instructions, when executed by one or more processors (150, see Fig 1), cause the one or more processors to perform the steps of the method.

10. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Background of Specification and Fig 1 (referred to as Spec) in Giesecke et al (NPL document titled: "PIDSY® Post Identification System") further in view of Onishi et al (Pub No.: US 2002/0136457).

As to claim 19, neither Spec nor Giesecke disclose expressly the method wherein the step of comparing comprises: analyzing image characteristics using a Euclid distance formula; and determining that the one or more initial images and the one or more subsequent images have a Euclid distance near zero, wherein the range of similarity includes having a Euclid distance near zero.

Onishi disclose a method for establishing correspondences between an input image and a reference image ([p][0001], lines 1-3) that includes using a Euclid distance formula (normalized correlation coefficient, [p][0045], line 1-9); and determining that the one or more initial images and the one or more subsequent images have a Euclid distance near zero, wherein the range of similarity includes having a Euclid distance near zero (see [p][0048], lines 1-8, where if the input image and the reference images are similar the normalized correlation coefficient becomes zero).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have combined the teaching of Onishi with the teachings of Spec as modified by Giesecke to find similarities between an initial bill and a stored or subsequent bill in order to determine if the initial bill is counterfeit.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Inquires

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **ANDRAE S. ALLISON** whose telephone number is

(571)270-1052. The examiner can normally be reached on Monday-Friday, 8:00 am - 5:00 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Andrae Allison

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/Samir A. Ahmed/

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